

SECTION 5.0 LONG TERM IMPLICATIONS OF THE PROPOSED PROJECT

5.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

An evaluation of significant irreversible environmental changes that would be caused by implementation of the Proposed Project is required under CEQA Guidelines Section 15126.2(c). As indicated in Section 15126.2(c):

“Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

The environmental effects related to the implementation of the Proposed Project are discussed in Section 3.1 through Section 3.8 of this EIR. Construction of the Proposed Project would require the long-term commitment of nonrenewable and renewable natural resources and land. These resources include, but are not limited to, petrochemical construction material; lumber; sand and gravel; asphalt; steel; copper; lead; and other metals, etc. In addition, fossil fuels used for construction vehicles would also be consumed.

Approval and implementation of the Proposed Project would also result in the loss of other resources. Because the Proposed Project would increase the size of the terminal from approximately 56,320 square feet to 102,850 square feet, it is anticipated that there would be an increase in the need for resources that are used for construction, heating, and cooling of proposed uses; potable and non-potable water for food preparation, drinking, irrigation, etc; transportation of people and goods to and from the site; as well as lighting and other associated energy needs. However, as previously indicated in Section 2.5.1, there is a commitment to construct the Proposed Project to meet high standards for efficiency and environmental design, consistent with Leadership in Energy and Environmental Design (LEED) standards which emphasize state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. Implementation of LEED standards with the Proposed Project would result in a more energy efficient facility, ultimately reducing the amount of resources that would be required if LEED standards were not implemented. Nevertheless, the Proposed Project would still result in the use of renewable and nonrenewable resources that would continue to represent a long-term commitment to the use of these resources. However, the incremental increase in the demand for these resources is not expected to be significant. As discussed in the NOP, there is sufficient capacity to serve the Proposed Project.

While the implementation of the Proposed Project would result in the commitment of land resources for Airport terminal and support functions, the area proposed for development is already committed to these types of uses. This use is also consistent with the long range planning for the City of Long Beach, including the City General Plan. Therefore, the Proposed Project would not result in a new commitment of land and resources for this use.

With the Proposed Project, the commitment to the use of nonrenewable and slowly renewable resources is required for the construction and operation of the project. However, the Proposed Project and, therefore, continued use of these resources, is consistent with regional and local

growth anticipated in the area. In addition, because the terminal area site has already been disturbed with construction of the existing temporary facilities and/or pavement, limited changes to the natural environment would be associated with the Proposed Project. Parcel O has been previously disturbed but is currently vacant. No other significant irreversible changes would occur with implementation of the Proposed Project.

5.2 GROWTH-INDUCING IMPACTS

A project is considered growth-inducing if it can foster economic or population growth, or construction of additional housing, either directly or indirectly, in the surrounding environment (as defined in the CEQA Guidelines, Section 15126[d]). Included in this definition are projects that would remove obstacles to population growth. Examples of growth-inducing actions include extension of urban services into a previously unserved area, extending a major roadway into a previously unserved area, and establishing major new employment opportunities. The characteristic of some projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively, would be considered growth-inducing.

When considering growth-inducing impacts, it is also important to consider the context and historical growth trends of the area. There are many factors that can affect the amount, location, and rate of growth in Long Beach and the region in general. These factors include: market demand for housing, employment, commercial services; the acknowledged desirability of climate and living/working environment and commercial economy; availability of other services/infrastructure; and land use and growth management policies of the local jurisdictions.

Long Beach has experienced significant population growth over the past 50 years. Population in the City has increased from approximately 251,000 persons in 1950¹ to approximately 475,000 persons in 2005.² During the past two decades, the economic character of Long Beach has also changed. While employment opportunities in the City have remained fairly constant—at around 164,000 jobs, Long Beach's economy has shifted from a manufacturing and trade-based economy to one focused on health services, education, tourism, and professional and business services. During the late 1990s, the City lost more than 10,000 high-paying manufacturing jobs; the new jobs that have replaced them pay less on average than the lost jobs.³ Another interesting fact about employment characteristics in Long Beach is that 66 percent of employed residents within the City work outside the City while 63 percent of the jobs within the City are held by non-residents. The City, therefore, functions as both a bedroom community to the regional economy and an employment center.⁴

The potential growth-inducing effects of a Proposed Project are evaluated in four ways:

- 1) Would the project have an effect on undeveloped land that may not be designated on any general plan for urban development, but would nonetheless experience increased growth pressure due to the presence of the project?
- 2) Would the project have an effect by removing constraints, thereby facilitating the construction of previously approved projects?

¹ Long Beach General Plan Housing Element, 2001.

² Long Beach Economic and Market Analysis, Volume 2, Marie Jones Consulting, 2005.

³ Ibid.

⁴ Ibid.

- 3) Would the project influence redevelopment of areas at a higher intensity than currently exists?
- 4) Would the project foster growth at the Airport?

Growth-Inducing Analysis

Effect on Undeveloped Land Not Designated on the General Plan for Urban Development

The land on the Airport property itself is designated for Airport use and includes landing fields and facilities, manufacturing, repair, offices, hotels, and airport-related support activities. There is very little undeveloped area on the Airport property. The *Long Beach Airport Development Areas* map identifies proposed uses for all the land on the Airport. The Proposed Project, including the development of Parcel O, is consistent with the *Long Beach Airport Development Areas* map. The Proposed Project would not have a growth inducing effect on undeveloped land at the Airport.

The area surrounding the Airport is designated on the General Plan for a mix of commercial, industrial, institutions/schools, open space/parks, mixed use, and residential land uses. Even the area designated for open space/parks is developed as the Skylinks Golf Course and is a committed land use. As depicted in Exhibit 2-2, Local Vicinity, the area is built out and there is very limited undeveloped land. The Proposed Project would not have a growth inducing effect on undeveloped land not designated for urban development.

Effect by Removing Constraints Facilitating Previously Approved Projects

The improvements proposed by the Proposed Project and Alternatives A and B would not eliminate a constraint for development of an approved project. There are no projects in Long Beach or the surrounding cities that have been approved but are conditioned or dependent on additional airport capacity. Additionally, the Proposed Project would not add capacity to any services or infrastructure that would be utilized by other projects in the surrounding area.

Influence Redevelopment at a Higher Intensity than Currently Exists

None of the project scenarios would result in any significant pressure to redevelop the area around the Airport at a higher intensity. In the past, the area was a major employment area for the City. Due to the loss of over 10,000 jobs at the Boeing facility that was located immediately north of the Airport, current employment numbers in the area are substantially lower than they were in the past. The City recently approved the Douglas Park project as a means to revitalize and draw jobs back into the area. These changes will occur independent of the Proposed Project and project alternatives.

Neither the Proposed Project nor the Optimized Flights scenario would stimulate significant redevelopment. There are height restrictions in the take-off and landing corridors due to FAA regulations for areas in immediate vicinity of the Airport that limit vertical development in the immediate vicinity. Intensification of the area around the Airport would not be expected due to small incremental increase in the number of flights and MAP served by the Optimized Flights scenario.

Effect on Fostering Growth at the Airport

Neither the Proposed Project nor any of the project alternatives would add passengers or flights at the Airport. However, as addressed in this EIR, the existing Airport Noise Compatibility

Ordinance does provide an opportunity for the airlines to add additional flights operations provided the noise budget is not exceeded. This would be accomplished through methods such as using quieter aircraft and reducing the number of late night operations. These flights are allowed regardless of whether the Proposed Project is approved or built. The additional commercial flights would result from carrier decisions to optimize flight operations under the Airport Noise Compatibility Ordinance, rather than the availability of specific terminal area facilities. Under the Optimized Flights scenario, an increase in flights would be experienced as a result of market forces and in response to unmet demand for air travel in the southern California region.

The potential for additional flights to induce growth can exist only when that capacity exceeds existing or future demand for air transportation. According to the aviation demand models developed by SCAG, the region's current demand for air transportation exceeds 79 MAP and demand is expected to increase to 170 MAP by the year 2030.⁵ Long Beach Airport has historically provided for only a very small portion of the air travel demand generated in Long Beach and the region. Other regional airports, such as Los Angeles International Airport or Ontario International Airport, handle all international as well as a substantial amount of long-haul demand. While the Optimized Flights scenario would provide additional capacity by increasing the number of flights and MAP served at Long Beach Airport, the area and the region would continue to have a significant unmet demand for air transportation. This remains true even with the capacity improvements currently underway at Los Angeles International Airport and John Wayne Airport in Orange County.

Based on this evaluation, the improvements proposed by the Proposed Project and project alternatives have been determined not to be growth-inducing, even under the Optimized Flights scenario.

5.3 CUMULATIVE IMPACTS

5.3.1 INTRODUCTION

The CEQA Guidelines (Section 15130) require that a project's cumulative impacts be discussed when "...the incremental effect is cumulatively considerable..." According to CEQA Guidelines Section 15064(h)(I), the term cumulatively considerable means "...that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects..." Specifically, CEQA Guidelines Section 15355 defines cumulative impacts as:

"...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- (a) The individual effects may be changes resulting from a single project or a number of separate projects.
- (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonable foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

⁵ Regional Aviation Plan for the 2004 Regional Transportation Plan, SCAG, 2004.

When addressing cumulative impacts, Section 15130(b)(1) of the CEQA Guidelines notes that the elements necessary to provide an adequate discussion of significant cumulative impacts encompass either:

- “(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or
- (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.”

To provide a comprehensive evaluation of the potential cumulative impacts for the Long Beach Airport Terminal Improvements project, the cumulative impacts analyses contained in this Draft EIR uses a combination of the two methods. The primary focus of the analysis considers the General Plan and regional growth assumptions for the project study area. The planning horizon year used for the cumulative analysis is year 2020. Use of this planning year horizon, allows consideration of regional growth. Given the Proposed Project's location in the heart of an urban area and ringed by major transportation corridors, the study area would have the potential to be affected beyond the immediate vicinity. Consideration of a list of other known projects was determined to be inappropriate and infeasible, as most of the projects on cumulative list of projects would occur within the next five years. Therefore, it was determined that the socioeconomic projections adopted by SCAG and used as part of the regional planning efforts, such as Regional Transportation Plan and the SCAQMD Air Quality Management Plan, would more fully address the potential for cumulative impacts. However, recognizing the significance of the Douglas Park project immediately north of the Proposed Project site, the cumulative impacts analysis also considers potential impacts associated with implementation of this major reuse project.

As discussed in Section 3.8, Transportation and Circulation, the traffic analysis used the Douglas Park traffic analysis to ensure consistency with that recently approved project. In developing the database for the Douglas Park project, not only were the regional growth projections used, an extensive list of projects was compiled based on input from the cities of Long Beach, Signal Hill, and Lakewood. This approach ensured the traffic model considers how the development is loading onto the circulation network. As part of the Proposed Project these jurisdictions were contacted to determine if there were any new projects being considered that would influence the study area and should be considered as part of the cumulative analysis. The cities of Lakewood and Signal Hill each provided a list; however, indicated that the current projects being considered would be within regional growth assumptions. Appendix H includes the list of projects incorporated into the Douglas Park traffic analysis, as well as the project lists from the cities of Lakewood and Signal Hill.

Cumulative study areas are defined based on an analysis of the geographical scope relevant to each particular environmental issue. Therefore, the cumulative study area for each individual environmental impact issue may vary. The specific boundaries and the projected growth within those boundaries, for the cumulative study area of each environmental issue, are identified within each applicable environmental issue discussion below.

5.3.2 CUMULATIVE IMPACT ANALYSIS

The thresholds of significance used when evaluating cumulative impacts are the same as the thresholds set forth in each topical area in Section 3.

Aesthetics

As discussed in Section 3.1, Aesthetics, the Proposed Project would result in the following potential project-specific impacts associated with aesthetics:

- *The Proposed Project would alter views of the project site during construction activities, potentially resulting in short-term aesthetic impacts in the vicinity of the terminal.*
- *The Proposed Project would result in construction activities and expansion of the terminal facilities. This could result in light and glare impacts associated with security lighting and light emanating from the proposed improvements.*

All potentially significant aesthetic and visual resource impacts associated with the Proposed Project would be reduced to a level considered less than significant with implementation of the mitigation program identified in Section 3.1.3.

When evaluating cumulative aesthetic impacts a number of factors must be considered. For a cumulative aesthetic impact to occur, the proposed elements of the cumulative projects would need to be seen together or in proximity to each other. If the projects were not in proximity to each other, the viewer would not perceive them in the same viewshed. Therefore, even though the related projects may be identified as changing the visual character of their project areas, since they are not in close proximity to the Airport, they would not contribute to a cumulative aesthetic impact.

The context in which a project is being viewed would also influence the significance of the aesthetic impact. The contrast a project has with its surrounding environment may actually be reduced by the presence of other cumulative projects. However, consideration of changes to the community character must be considered if cumulative projects would dramatically change the visual environment.

The Proposed Project because of its location would not be within the same viewshed as other development projects within the area. The improvements within the terminal area are set within the Airport Entrance area and the Parcel O improvements are along the southern portion of the Airport limits. There are no other development projects being considered that would substantially alter view of these areas. Even the Douglas Park development would be sufficiently to the north that views of the terminal area would not include the Douglas Park development. When considered on a broader scale the combining of these projects would also not change the community character. The project site is already completely developed and is located in an urbanized area; the Proposed Project in combination with the other related projects in the immediate vicinity would not significantly alter the perception of the area as an urban environment. The Proposed Project in combination with other known projects would not substantially change the developed environment nor would they degrade the existing visual character of the area. Therefore, there would be no significant cumulative impact.

Air Quality and Health Risk Assessment

As discussed in Section 3.2, Air Quality and Health Risk Assessment, the Proposed Project would result in the following potential project-specific impacts:

- *Project-related construction activities would result in a significant short-term construction-related air quality impact for NO_x and VOC. Implementation of mitigation program would reduce these impacts, but not to a level considered less than significant.*

In addition, the following impact would occur with the Optimized Flights scenario. This is not a component of the Proposed Project or any of the alternatives; however, if the operational procedures and aircraft used are optimized so that additional flights could operate within the noise budget permitted by the Airport Noise Compatibility Ordinance, then the flights are allowed regardless of whether the Proposed Project is approved or built. With the Optimized Flights scenario, the following potential impacts would occur:

- *Incremental air quality emissions with the Optimized Flights would exceed SCAQMD's PM₁₀ concentration threshold due to associated GSE and vehicular traffic activity, contribute substantially to an existing air quality violation, and expose sensitive receptors to significant PM₁₀ concentrations. Implementation of the mitigation program would reduce these impacts, but not to a level considered less than significant.*
- *Air quality emissions with the Optimized Flights would exceed SCAQMD's thresholds of significance for CO and NO_x. The mitigation program would reduce the CO impacts to a level considered less than significant. NO_x emissions would remain significant even after implementation of the mitigation program.*

Construction Air Emissions

The Proposed Project would result in significant short-term construction air quality impacts. For there to be cumulative construction air quality impacts there would need to be other projects under construction at the same time and in close enough proximity that the construction emissions would combine and result in cumulative impacts. The Douglas Park project is immediately north of the Airport. According to the Douglas Park EIR (City of Long Beach 2004), construction emissions of carbon monoxide (CO), volatile organic compounds (VOC), oxides of nitrogen (NO_x), and particulate matter (PM₁₀) were significant. The location of the Douglas Park project would be considered to be in close enough proximity to the Proposed Project that the emissions would combine. It is also reasonable to assume that the timing of the Proposed Project and Douglas Park would occur simultaneously. The Proposed Project is projected to be implemented over a period of several years. The project phasing program for Douglas Park would overlap the Airport's construction timing. Therefore, it is reasonable to assume that in addition to significant project-related construction air quality impacts, there would be significant cumulative construction air quality impacts. Though both projects would be required to implement a mitigation program to reduce the construction emissions, the impacts would remain significant unavoidable impacts.

Cumulative Chronic Risks

In November 2000, the SCAQMD completed an urban air toxics monitoring and evaluation study for the South Coast Air Basin called MATES-II. MATES-II provides a general evaluation of cancer risks associated with TACs from all sources within the South Coast Air Basin. According to the study, cancer risks in the Basin range from 1,120 in a million to 1,740 in a million, with an average of 1,400 in a million. Based on observed data results from the Long Beach air

monitoring station, ambient risks for Long Beach are about 1,120 in a million. These cancer risk estimates are high and indicate that current impacts associated with sources of TACs from past and present projects in the region are significant. The MATES-II study is an appropriate estimate of present cumulative impacts of TAC emissions in the South Coast Air Basin. It does not, however, have sufficient resolution to determine the fractional contribution of current Long Beach Airport operations to TACs in the airshed.

In February 2005, the City of Long Beach completed a baseline Air Quality and Noise Human Health Risk Assessment. The purpose of this study was to address concerns concerning air and noise pollution within City limits from the emission of pollutants from the major transportation sources (freeways, ports, airport, and truck/rail traffic) and noise from the Airport and their impact on residents. The following constituents were identified as major contributors to air pollution—NO_x, VOCs, small particulates (PM₁₀ and PM_{2.5}), and air toxics. The study reported that toxic emissions from aircraft and support equipment at the Long Beach Airport only contribute a fraction of the overall risk from ambient air pollution in Long Beach resulting in an expected excess cancer risk of 10 to 20 in a million from Long Beach Airport emissions, primarily from use of GSE (City of Long Beach 2005c).

Using the MATES-II Study, only possible incremental contributions to cumulative impacts can be assessed. Overall, the analyses indicated that:

- Airport operations would have a relatively small impact (i.e., maximum of 17 in a million compared to 1,120 cancer cases in a million or less than 2 percent) on cumulative human cancer risks associated with living in the City of Long Beach. It would probably not be measurable against urban background conditions.
- 2020 Optimized Flights with terminal area improvements would reduce cancer risks below those predicted for 2005 Baseline conditions. That is, the 2020 Optimized Flights scenario would result in a decrease in cumulative risks for many people living closest to the Airport.

With regard to probable future projects, continued growth and development in the region, would result in additional sources of TACs. Because future sources and releases of TACs are highly speculative, meaningful quantification of future cumulative health risk exposure in the Basin is not possible. Moreover, the threshold of significance used in this analysis is based on the incremental cancer risk increase of individual projects; this threshold is not appropriately applied to conclusions regarding the cumulative cancer risk in the Basin. However, based on the relatively high cancer risk level associated with past and present projects, as represented by the environmental baseline (i.e., an additional 1,120 cancer cases per million), the increase in flights associated with the Optimized Flights scenario would add incrementally to the already high cumulative impacts in Long Beach.

The above comparisons do not account for possible positive changes in air quality in the South Coast Air Basin in the future. SCAQMD and other agencies are consistently working to reduce air pollution. In particular, reductions in emission of diesel particulates are being considered for the near future. Since diesel particulates are the major contributors to estimated cancer risks, substantial reductions in diesel emissions would result in substantial reductions in cumulative cancer risks. Such reductions may not, however, have a substantial effect on estimates of the Optimized Flights scenario's contributions to cumulative risks, as efforts to reduce diesel particulate would apply to both Long Beach Airport -related and other sources. These, and other such regulations intended to reduce TAC emissions within the Basin, would serve as the basis for mitigating cumulative impacts in the region. While continued, if not increased, regulation by the SCAQMD of point sources as well as more stringent emission controls on mobile sources

would reduce TAC emissions, whether such measures would alter incremental contributions of TAC releases to cumulative impacts under the Optimized Flight scenario cannot be ascertained.

Cumulative Chronic Non-Cancer Hazards

No study equivalent to the MATES-II study is available for assessing possible cumulative non-cancer impacts. USEPA conducted an independent study with 1996 National Air Toxics Assessment Exposure and Risk Data of possible annual average air concentrations within the South Coast Air Basin associated with a variety of TACs, including acrolein. These estimates provide a means for assessing cumulative non-cancer impacts of airport operations in much the same manner as cumulative cancer risks were assessed using the MATES-II results.

Within the study area of the HHRA, USEPA predictions for hazard indices range from 9 to 167, with an average of 21. Because of the large uncertainties associated with the USEPA estimates, the cumulative analysis for non-cancer health impacts is semi-quantitative and based on a range of possible contributions. This cumulative analysis does not address the issue of potential interactions among the criteria pollutants. Such interactions cannot, at this time, be addressed in a quantitative fashion.

Maximum incremental hazard index for the 2011 No Project was estimated to be about 0.2 for the off-Airport worker compared to the 2005 Baseline. Hazard indices for all other scenarios and receptors were less than this value. This increment represents between 1 and 2 percent of the estimates based on USEPA modeling. Maximum incremental hazard index for the 2011 Proposed Project was estimated to be about 0.1 for the off-Airport worker. Hence, the Proposed Project could add minimally to total average acrolein concentrations in the Basin, and to possible chronic human health hazards associated with exposure to acrolein.

There are limited data available describing acrolein emissions from jet aircraft engines. Therefore, estimates of non-cancer hazards are very uncertain. Non-cancer hazards associated with the Proposed Project should only be used to provide a relative comparison to baseline conditions, recognizing that the uncertainties associated with acrolein emissions apply to all scenarios. These hazards should not be viewed as absolute estimates of potential health impacts. Moreover, USEPA's estimates are based on data that are now several years old. Emissions from some important sources may have been reduced as a result of continuing efforts by SCAQMD and other agencies to improve air quality in the South Coast Air Basin. Finally, the estimates do not consider degradation of TACs in the atmosphere. Degradation may be very important for relatively reactive chemicals such as acrolein.

Cumulative Acute Non-Cancer Hazards

Generally, predicted concentrations of TACs released from the Airport suggest that acute health hazards would not be expected. The exception might be levels of acrolein in Airport emissions. Acrolein contributes almost all of the non-cancer risk that might be associated with the Proposed Project. The REL for this TAC for evaluation of chronic exposure (0.06 ug/m³) and the REL for the evaluation of acute (short term) exposure (0.19 ug/m³) are not greatly different. Since some estimates of non-cancer hazard following chronic (long-term) exposure are fairly high, the possibility that short-term concentrations might exceed 0.19 ug/m³ was evaluated.

When USEPA annual average estimates are converted to possible 1-hour maximum concentrations, acute hazard indices associated with total acrolein concentrations are estimated to range from 12 to 211, with an average of 27, for the census tracts within the study area. Predicted maximum incremental acute hazards are 1.5 and 6.7 for residential and off-Airport commercial land uses, respectively, and 11.6 for on-Airport workers. Thus, the SAIP could

contribute between 0.7 and 12.5 percent above current levels at residential locations, between 3.2 and 56 percent above current levels at off-Airport locations, and between 5.5 and 97 percent above current levels at on-Airport locations

Cultural Resources

As discussed in Section 3.3, Cultural Resources, the Proposed Project would result in the following potential project-specific impact associated with cultural resources:

- *The Proposed Project would result in alterations to a designated historical landmark.*

With implementation of the proposed mitigation program listed in Section 3.3.3, potential impacts to cultural resources would be reduced to a level considered less than significant.

Given the nature of the impact associated with the Proposed Project, there are no reasonably anticipated projects that would contribute to a cumulative impact on the Terminal Building as a historical resource. Additionally, the Terminal Building is the only designated historical landmark within the project vicinity. Therefore, the Proposed Project is not contributing to cumulative modifications of designated historical landmarks in the project vicinity.

Hazards and Hazardous Materials

As discussed in Section 3.4, Hazards and Hazardous Materials, the Proposed Project would result in the following potential project-specific impacts associated with hazards and hazardous materials:

- *During construction, asbestos-containing materials could be disturbed and introduced into the environment.*
- *During construction, lead-based paint could be introduced into the environment.*
- *During grading activities at Parcel O, aerially-deposited lead could be introduced into the environment.*
- *During grading activities at Parcel O, DDT could be introduced into the environment.*
- *During construction, hazardous materials could be transported onto the Airport along established haul routes, including Willow Street.*

With implementation of the proposed mitigation program listed in Section 3.4.3, potential impacts associated with hazards would be reduced to level considered less than significant.

Given the age of the development within the area surrounding the Airport, it is likely that future projects may result in impacts similar in nature to the impacts identified for the Proposed Project. Although cumulative projects, such as Douglas Park, also have potential impacts associated with hazardous materials, the environmental concerns associated with hazardous materials are site specific. Each project is required to address any issues related to hazardous material or wastes. Federal, state, and local regulations require mitigation to protect against site contamination by hazardous materials. Therefore, there would be no cumulative hazardous materials impacts.

Land Use and Planning

As discussed in Section 3.5, Land Use, the Proposed Project would not result in any land use impacts. However, the Optimized Flight scenario would potentially result in the following land use impact:

- *The Optimized Flights scenario has the potential to induce airport land uses beyond the Airport boundary. Specifically, the increased flight levels would require additional vehicular parking beyond the levels provided by the Proposed Project. This impact is associated with the Optimized Flights scenario and not the Proposed Project.*

With implementation of the proposed mitigation program listed in Section 3.8.3, Transportation and Circulation, potential impacts associated with the insufficient parking and, as a result a land use impact, would be reduced to level considered less than significant. Given the very use specific nature of this impact, there would need to be other projects that would result in airport land uses being induced into the surrounding neighborhoods. There are no other projects currently identified by any of the local jurisdictions, the General Plan, or regional plans that would result in airport uses occurring in the surrounding neighborhoods. In fact, the Douglas Park project would result in airport-related land uses being redeveloped with non-airport related uses. No significant cumulative land use impacts would occur.

Noise

As discussed in Section 3.6, Noise, the Proposed Project would result in the following noise impact:

- *Night construction activity on Parcel O may result in noise levels in excess of the noise levels specified in the Long Beach Noise Ordinance if heavy construction equipment associated with grading and paving are used.*

With implementation of the proposed mitigation program listed in Section 3.6.3, potential impacts associated with hazards would be reduced to level considered less than significant.

Though not related to the Proposed Project, there would continue to be sensitive land uses within the 65 CNEL contour from the Airport. The cumulative projects and regional growth would not result in a substantial increase in the noise levels surrounding the Airport. The noise generated by the cumulative projects would be predominately traffic noise and would not affect the noise contours associated with the Airport. Therefore, there would be no significant cumulative impact.

Public Services

As discussed in Section 3.7, Public Services, the Proposed Project does not result in any significant impacts. Standard Conditions were identified that would apply to the Proposed Project. The nature of the Proposed Project differentiates it from other development that may occur because of growth within the region. The needs of the Airport are distinct with regards to security and fire protection. The Airport provides these services onsite. The services onsite would not respond to emergencies within the community. Therefore, cumulative projects and growth would not contribute with the same type of demand as the Proposed Project. Therefore, there would be no significant cumulative impact.

Transportation and Circulation

As discussed in Section 3.8, Transportation and Circulation, the Proposed Project would not result in any impacts; however, there would be impacts associated with the Existing Plus Optimized Flights scenario. The following potential impacts have been identified for the Optimized Flights scenario:

- *The Existing Plus Optimized Flight scenario would result in significant impacts at the Spring Street/Lakewood Boulevard and the Willow Street/Lakewood Boulevard intersections during the weekday AM peak hour. With the implementation of MM 3.8-1, this impact would be reduced to less than significant.*
- *With the Optimized Flight Scenario, there would be insufficient parking with the Proposed Project. With the implementation of MM 3.8-2, this impact would be reduced to a level of less than significant.*

The traffic model used for calculating the 2020 Proposed Project impacts utilizes the growth assumptions adopted by SCAG, as well as project specific traffic as evaluated in the EIR for Douglas Park. Therefore, these long-range projections account for potential cumulative impacts. The analysis, as discussed in Section 3.8, Transportation and Circulation, indicates that not only would there not be a cumulative impact, in 2020 the impacts identified above would be reduced to a level of less than significant. This is because as the development associated with approved projects (i.e., Douglas Park) improvements to the circulation network would be implemented. These improvements, which are conditions that have been placed on the Douglas Park project, would increase capacity on the local network and sufficient capacity would be available even with the Optimized Flight scenario. There would be no significant cumulative impacts.